

AMENDMENTS TO THE DRAWINGS

The attached drawing sheet includes changes to Sheet 3, Fig. 3. Fig. 3 has been amended to delete reference character 17 and its associated lead line. No other amendment has been made.

Attachment: Replacement Sheet 3.

REMARKS

Claims 1-30 were examined in the most recent office action dated July 5, 2006. Both the drawings and the specification stand objected to. Claims 1-30 stand rejected under 35 U.S.C. § 112, second paragraph for an alleged indefiniteness. Claims 1-7, 10, 16-18, and 26-30 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by West, U.S. Patent No. 5,123,839. No substantive rejection based on prior art was made to claims 8, 9, 11-15, and 19-25.

A Notice of Allowance is respectfully requested in view of the amendments made to the specification, drawings, and claims as well as the arguments made herein.

The Objections to the Drawings.

The drawings stand objected to because the specification uses reference number 23 to designate both the cooling body and the heat exchanger element. The specification has been amended to use reference number 25 to designate the cooling body. This is consistent with Fig. 6b, and the previous designation of the cooling body 25 earlier in the paragraph. In the same paragraph, the circuit board has been renumbered from 24 to 14 to be consistent with Fig. 6b, which shows the circuit board 14.

The drawings next stand objected to for showing a reference character 17 that is not mentioned in the description. By way of this amendment, Sheet 3, Fig. 3 has been amended to delete reference character 17 and its associated lead line. A replacement sheet is included with this response.

Applicants respectfully request that the objections to the drawings be withdrawn.

The Objection to the Specification.

The Office states that the specification appears to be a translation of a foreign specification and objects to the specification for containing errors of form such as reference to the claims. By way of a preliminary amendment filed at the same time as this application, the references to the claims in the specification were deleted. If the Office requires any particular amendments to the specification, applicant requests that those objections be made specifically.

Claim Rejections – 35 U.S.C. § 112

Applicants respectfully request withdrawal of the rejection to claims 1-30 under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. The Office lists several terms as allegedly lacking antecedent basis, but does not identify the specific claims being rejected due to the identified allegedly indefinite claim terms. Applicants respond herein as they best understand the rejections.

The claims stand rejected because the terms “the sensor signals” and “the output signal” lack antecedent basis. Claim 1 has been amended to delete “the sensor signals” and replace this term with “signals provided by the temperature sensor.” Further, claim 1 has been amended to delete “the output signal” and to replace this term with “an output signal.”

The claims stand rejected because the terms “the first media line,” “the second media line,” and “the first and second switches” allegedly lack antecedent basis. Claim 5 has been amended to recite “a first media line” and “a second media line.” Further, claim 5 has been amended to delete “the first and second switches” and has been amended to recite “the first switch and the second switch.”

The claims stand rejected because the term “the regulation” allegedly lacks antecedent basis. Claim 7 has been amended to recite “the output signal of the associated regulation circuit,” which has antecedent basis in claim 6.

The claims stand rejected because the term “the electronic components” allegedly lacks antecedent basis. Claim 16 has been amended to recite, “the regulation circuit including electronic components,” which provide antecedent basis for the noted claim term.

The claims stand rejected because the term “the temperature sensor or sensors” allegedly lacks antecedent basis. Claim 10 depends from claim 5, which recites that each of the air media line and the water media line includes a respective temperature sensor. Claim 10 has been amended to recite that “the temperature sensors are arranged directly in the associated media line.”

Claim 2 stands rejected because “a suppression time of regulation” and “a switch on interval of the switch” is allegedly indefinite. Claim 2 has been amended to recite that the regulation circuit includes a capacitor and the duration of the short period of time during which the heating element is operated at a predetermined heating power is dependent upon a delay of the capacitor. This has support in the specification on page 16, lines 31-35.

Claims 18, 28, and 30 stand rejected because “further electronic components” is allegedly indefinite. The claims have been amended to delete the noted element and recite that the heating device includes a second set of electronic components. Withdrawal of all rejections due to indefiniteness is hereby respectfully requested.

Claim Rejections – 35 U.S.C. § 102(b).

Applicants respectfully traverse the rejection to independent claim 1 as anticipated by West. Claim 1 recites, in part, that the heating element is, after actuation of the switch,

operable for a short period of time at a predetermined heating power independent of an output signal of the regulation circuit.

West fails to disclose a heating element that is operated independent of a regulation circuit. Instead, West only discloses a heating element that is always controlled by a temperature control module. "There is a temperature sensor circuit 28 connected to the preheat temperature sensor 21 and to the postheat temperature sensor 24 to provide current to the temperature sensors and transmit electrical signals from the sensors to a temperature control module 29. The temperature control module 29 regulates and displays the temperature of the air and water, on LED display 30, exiting the first tube 14 and second tube 16, respectively." West, col. 6, lines 14-21 (emphasis added). Accordingly, West fails to disclose that the heating unit is ever or could ever be operated independent of the temperature control module.

As disclosed in an embodiment in the specification, this system can avoid the delay inherent in a regulated circuit in heating the media. The regulation circuit can be suppressed for a specific period after the actuation of the switch for opening the media line. The heating element is operated at a predetermined heating power for a specific period in order to immediately heat up the medium guided through the media line. As it is explained on page 3 of the specification, the medium emerging from the output nozzle is heated to the designed internal temperature in as short as possible time, without the delay of the regulation. Because West fails to disclose or suggest operation of the heating element independent of the temperature control system, claim 1 is allowable. Claims 2-4 and claims 19-26, which depend from claim 1, are allowable for at least the same reasons.

Applicants respectfully traverse the rejection to independent claim 5 as anticipated by West. Claim 5 recites, in part, that upon simultaneous actuation of the first switch and the

second switch, the heating element for the first media line for air is switched off. West completely fails to disclose or suggest the claimed element. The Office action fails to cite any portion of West that it alleges discloses this limitation.

The switching off of the air heating elements can help to save energy. Because the final temperature of the spray is more influenced by the water temperature than the air temperature, it has been found that it is not necessary to heat the air. This system improves the efficiency and reduces the power consumption of the heating device. Accordingly, claim 5 is allowable over the art of record. Because claim 5 is allowable, dependent claims 6-17, 27, and 28 are also allowable.

Applicant respectfully traverses the rejection to independent claim 16 as anticipated by West. Claim 16 recites, in part, a heat exchanger element coupled with the media line for the return of heat loss arising at the first set of electronic components. Again, West completely fails to disclose or suggest a heat exchanger for the recovery of heat loss. The Office action fails to cite any portion of West that it alleges discloses this limitation.

The heat exchanger of claim 16 helps to reduce the power consumption of the heating device by using the heat loss from the electronic components of the regulation circuit to heat the medium. In one embodiment, a heat exchanger element is used which is coupled with the electronic components of the regulation circuit and with the media line. In this way, the power used by the electronic components of the regulation circuit is efficiently used in order to heat up the medium.

Finally, no rejection has been made to claims 8, 9, 11-15, or 19-25. The claims are therefore allowable as originally presented unless a new, non-final rejection is raised against them in the next action.

CONCLUSION

In view of the foregoing remarks, the claims as now appearing in this application are in good and proper form for allowance. A favorable action on the part of the examiner is respectfully solicited. If, in the opinion of the examiner, a telephone conference would expedite prosecution of the subject application, the examiner is invited to call the undersigned attorney.

The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 13-2855, under Order No. 30815/26966/US.

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Respectfully submitted,

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Attachments

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REPLACEMENT SHEET